gard of the Earth, becauſe the motion was retrograde, *this* was to be made Concave towards the Earth; ſuitable to what hath been ſaid in the ſame Theory, becauſe that the motion of this Comet is direct.

According to this *Hypotheſis*, thoſe laſt daies, that the Clouds hindred us from ſeeing this Comet, he muſt have continued his courſe towards the root of the Southern horn of *Taurus*, and having paſs'd the Ecliptique between the 9*th* and 10*th* of *April*, he muſt paſs on the top of *Orion's* head the 20*th*; over his Arm the 24*th*; and at the end of this month he will be in the *Milky Way*. But it will be difficult hence forward to find him, becauſe of his ſmallneſs, and the light of the Moon.

Tis a thing worth obſerving, that this Comet keeps his courſe almoſt like that of the 2*d* Comet of 1665, and of another of 1577 obſerv'd by *Tycho*. For they have paſs'd through almoſt the ſame Conſtellations; though this be more inclined Nord-ward, and cut the Ecliptique five or ſix degrees more forward than that of 1665. So that it ſeems, that in this place of the Heavens there is, as 'twere, a *Zodiaque* for Comets.

An Account of ſome Books.

1. *De* RESISTENTIA SOLIDORUM Alexan. Marchetti, *in Pi-ſana Academia Phil. Prof. Excuſum* Florentiæ 1665 *in thin* 4°.

THis book came not long ſince to my hands: It had been promiſed ſome years before under the Title of *Galilæus ampliatus*. But the Author now follows not the Steps of *Galilæus*, but demonſtrates all his Propoſitions another way; building all upon this ground: *Momenta Gravium proportionem habent compoſitam ex proportionibus ponderum & longitudinum*: which is his firſt Proportion. This Book being but ſmall, and the ſubject admitting of enlargement, the Author promiſeth a larger Treatiſe of the ſame.

II. *Tabula numerorum* QUADRATORUM *decies millium, una cum ipſorum* LATERIBUS *ab Unitate incipientibus, & ordine naturali uſque ad* 10000. *progredientibus*. Londini, 1672.

A Table of ten thouſand *Square numbers*, namely of all the Square Numbers between 0 and 100 milions; and of their *Sides* or *Roots*: Which are all the whole Numbers between 0 and ten thouſand: 8 ſheets in fol.

The Concinnity of 10, 8 or 7. Centuries in each opening, may ſo pleaſe ſome Reader's eye as to invite him to continue the Table

Table to 100 thouſand Squares, placed in the ſame order. But Arithmeticians will ſee divers advantages, which would have been loſt, if there had been more or fewer lines in a page; or if the Centuries had not ſtood entire in every aperture.

The two laſt pages are ſufficiently contained in p. 30. which preceeds them, if men were acquainted with the compendious way of writing in *Cribris*. That fair edition of *Aratus*, printed this year in *Oxford*, adjoins ſome fragments of *Eratoſthenes* (who dyed almoſt 1900 yeares ago.) Among the *reſt*, there is the *beginning* of his Arithmetical κόσκινον of odd numbers, to ſhew, which of them are incompoſit &c. The loſs of that *cribrum* was abundantly ſupplied by the *Table* of incompoſit numbers, printed at *London* for Mr. *Pitt*. 1668; as this Table is.

Thoſe 3 laſt pages have a Curioſity, perhaps not ſeen before; viz. an accurate enumeration of all the *Endings* of numbers truly Square. Thoſe *Endings* in *one* figure are ſix; in *two* figures, are 22; in *three* figures, are 159; in 4. figures, are 144: which, being here ſet down in their natural order, ſtand there ready to diſcover many long given numbers not to be Square; which otherwiſe could not have been perceived to be ſuch till after extraction.

But they alſo give an occaſion to tranſcribe here the *three laſt* lines of the laſt page, which are theſe.

" *Having the two three or* four *laſt figures of any Square number*, " *to exhibit as many of the* laſt *figures of its ſide*, is a new Queſtion, "to which the juſt anſwers are manifold and not obvious. A "*particular Account* of them is *ready for the preſs*, when it ſhall be deſired.

In the mean time, the Publiſher, having ſeen the ſaid Account in the hands of the Author (Doctor *Pell*,) is able, for the clearing of thoſe words [*the juſt anſwers are manifold*] to add thus much:

When the Queſtion is concerning the 22 Combinations, 20 of them have 4 Anſwers a peice; 50 of them have, each of them, 10 Anſwers.

When the Queſtion is concerning the 159 Ternions; 100 of them have 4 Anſwers a peice: 50 of them have, each, 8 Anſwers; Two of them have, each, *ten* Anſwers; *Five* of them, have each, 20 Anſwers; *Two* have, each of them, 40 Anſwers.

When

When the Queſtion is concerning the 1044 Quaternions; 1000 of them have 8 Anſwers a peice; 40 of them have, each, 40 Anſwers; four of them have, each, 100 Anſwers:

As it is hoped, will ſhortly appear in print; that ſo the Excellent Author may proceed to publiſh his higher and more plauſible ſuperſtructures.

III. Regneri de Graaf. *de MULIERUM ORGANIS GENERATIONI INSERVIENTIBUS Tractatus novus.* Lugduni Batavorum, 1672 *in* 8°.

WHat this Inquiſitive and Induſtrious Anatomiſt had formerly promiſed touching this Subject (intimated N°. 34. p. 663. and N°. 79. p. 3056. 3057.) he now amply performeth in this Treatiſe, which appears to be written upon long ſearch and much examination, and is illuſtrated with many very curious and accurate Schemes.

The main Deſign of the Book is, to make it out what the Author as well, as *VanHorn*, *Steno*, *Swammerdam*, and others have given out concerning the Manner of Generation in Animals call'd *Viviparous*; viz. that they, no leſs than the *Oviparous*, have *Ovaria* containing many Eggs; and that thoſe Eggs are after the ſame manner rendred prolifick, and come to the *Uterus*, as they do in Fowl: which he ſaith will be found more than probable to thoſe, that ſhall have well examin'd the Genitals of Oviparous creatures; in regard that, as the extremity of the *Oviductus* or Egg-channel ends in a membranous expanſion in Birds; ſo the *Tubæ Fallopianæ* do end likewiſe in Quadrupeds. And as the ſame *Oviductus* in Birds receiveth the Eggs falling from their buds; ſo the ſaid dilated *Tubæ* in Quadrupeds do receive the Eggs expell'd out of the Baggs. Which that it may be the better clear'd up, he obſerveth.

1. *Ova hæc in teſtibus generari ac perfici, eodem modo quo vitelli in Avium ovariis ſolent; quatenus ſcil. per arterias præparantes ſanguis ad teſtes affluens, in membranoſa illorum ſubſtantia materiam iis generandis ac nutriendis relinquit.*

2. *Ova è teſtibus expelli, quoties maſculino ſemine irradiata, brevi poſt coitum fœcundum, inter eorum tunicas, glanduloſa quædam ſubſtantia excreſcit, quæ Ovum tamdiu comprimit, donec per papillam, in extrema folliculi ſuperficie conſpicuam, erumpat; idque vel citiùs vel tardiùs, prout animalia longiori aut breviori tempore uterum gerunt.*

3. *Ova*

3. *Ova hac ratione e teſtibus propulſa neceſſariò in Abdominis cavum eſſe delapſura, niſi* Tubæ Fallopianæ *inexplicabili, at viſibili tamen, modo ova illa exciperent, & ad uterum deveberent*: Viſibilem *dicit, cùm ſæpius id conſpexiſſe ſe, & indies ſe demonſtrare poſſe affirmet.*

Whereunto he adds the changes, which thoſe Eggs daily undergo in *utero*: All which things coming to paſs in Cows, Ewes, and other Animals, frequently diſſected by him, he concludeth, that Generation in *Women* alſo is made after the ſame manner, *quippe quæ ova in teſtibus, & tubas utero annexas, uti bruta animantia, obtineant.*

Mean time, he would not have any one phancy, that the Eggs in Quadrupeds and Women are inveſted with a hard ſhell: that being not eſſential to an Egg, and there being more ſorts of Eggs that have no ſuch hard ſhell, than that have it; as of Fiſhes, Froggs, Serpents, &c.

Nec putare nos velit, in Mulieribus & cæteris Viviparis, iſto quo in Gallinis modo, per unum alterumve diem Mari commiſſis, omnia omninò Ova fœcunda reddi; cum ne quidem in omni Avium genere id fieri certum ſit, in quorum aliis duo, in aliis tria, in aliis quatuor, in nonnullis decem & plura Ova ſimul fœcundentur & ab iis excludantur. Mulieres verò, quanquam & ipſæ plura in Ovariis ova contineant, plurumque tamen in noſtris regionibus unum tantum Ovum, maſculino ſemine irradiatum è teſtibus in uterum expellant; quanquam & plura interdum eodem ſimul coitu irrorari citra miraculum poſſint: cujus rei multa apud Caſp. Bauhinum l. 1. de Hermaphr. c. 8. exempla legantur; ubi nunc tres, nunc quinque, nunc decem & plures fœtus uno partu editos reperies; quod canibus, fœtibus, cuniculis &c. perquam familiare eſt. Ubi tamen notatu dignum, in iſtis animalibus tot paſſim folliculos in teſtibus exiſtere, quot fœtus aut Ova in utero, & nunquam in utero plures fœtus adeſſe, quàm folliculos in teſtibus; ita ut ex teſtibus ſolis, fœtuum in utero exiſtentium numerus dignoſci poſſit.

But, beſides the clearing of this matter and the difficulties and objections raiſed againſt it, the Author is very full and accurate, in deſcribing the *Genitalia Mulierum* themſelves.

Moreover he giveth us two curious and inſtructive Schemes *de partibus Genitalibus Galli & Gallinæ*, together with their Explication. And he omits not to deliver a minute deſciption of the *Tubæ Fallopianæ mulierum*; and ſhews, whence it is, that by ſome they are eſteem'd altogether and alwaies cloſe, whereas they are at certain times really open, though the hole of their extremity be very narrow; p. 246. He rejects the (commonly ſo called) *Vaſa deferentia* from being fit veſſels for tranſmitting Eggs, p. 250. as he alſo contradicts the aſſertion of thoſe, that pretend to have found humane *fœtus's* of no more than 3, 4. or 8, daies old after conception, p. 246. * See Numb. 81. p. 4021.

Further he informs us, How an Egg is by degrees changed in *utero*; how it is nouriſhed and augmented there from time to time; and in what order each part is perfected &c. Concerning which, the Reader will probably receive in a ſhort time ſome diſcoveries, made, and lately

lately imparted to the *Royal Society*, by Signor *Malpighi*, an Italian, and Dr. *Croon* an Engliſh phyſitian, both Fellows of that Society.

He concludeth all with an excellent Chapter, treating of the Generation of *Rabbets*, and thereby confirming all the main parts of his former doctrine.

IV. *Diſcours de la* CONOISSANCE *des* BESTES; *par le P.* Ignace Gaſton Pardies, *S. J. A* Paris 1672. *in* 12°

THe learn'd Author of this Book examines therein the Opinion of thoſe, that eſteem Beaſts to be meer Engins without any perception and Knowledge. In the doing of which, he repreſents at large and to advantage what hath been and may be alledged in favour of that doctrine; that ſo, when he ſhall be found by the Teachers of it not to be of their ſentiment, they may not Judge him to be a Diſſenter at leaſt for want of having conſidered their reaſons.

After he hath ſpent the greateſt part of his diſcourſe in urging the arguments for the ſole Mechanical Contrivance of the Structure and Operations of Beaſts; and interſperſed the diſcuſſion of the Opinion *of the other extreme*, which adſcribes *Reaſon* to them: He declares at laſt his ſenſe of this whole matter, and endeavours to prove, That Beaſts, though they have not any *Intellectual*, yet they have a *Senſible* knowledg; or, though they have not ſuch a perception that eſſentially carrieth with it a reflection upon it ſelf; yet they have a ſimple apprehenſion of Objects without that reflexion. So that he eſteems, that from this diſtinction all the difficulties, that have been propoſed, will vaniſh; and that the reaſons, alledged to the contrary, proove indeed, that Beaſts have no *S*piritual knowledge, but not at all, that they have no Senſible one. For the particulars, whereby this is endeavoured to be made out, we refer the Reader to the Book itſelf.

Advertiſement.

A ſhort Eſſay *Printed in half a ſheet of Paper, wherein Rules are laid down, directing, how to divide a Period into ſentences; with what Points the Sentences ſhall be diſtinguiſhed, and how to read thoſe Sentences Grammatically; more diſtinct than what has been formerly done: Very uſeful for the clearneſs of any diſcourſe, and for expedit and diſtinct reading.* By *M.* Lewis: *Sold by* Thomas Parkhurſt *at the* Bible *and* Crown *in* Cheapſide, *and M.* Milion, *at the* Bible *in* Fleetſtreet.

ERRATA in N°. 81, P. 4011. l. 17. (=*DO*) l. 26. $2fv^3$, ibid. pro 5^2 leg. s^2. l. 29. pro, *alia VC* leg. *aliâve*. p. 4012. l. 10. *cæteriſque* l. 12. $nvh\kappa$. l. 13. $\frac{vh=52}{n12-vh\kappa}n\kappa$. l. 14. $\frac{s^2\kappa}{r^2-12}$ p. 4014. l. 14. poſt *Va*, add, *& æqualiter accelerato ſecundùm AV vel Ya*. l. 19. *& completo*. l. 25. *natarum*. l. 27. *rectis Yu*. l. 31. *VF*. p. 4015. l. 12. *AC*. *aE*=$\frac{s}{q}$r. p. 4016. l. 1 *CM*. *CS* :: l. 12. *conveniat*. l. 14. *accommodandus*.

LONDON,
Printed for *John Martyn*, Printer to the *Royal Society*. 1672.